

## ABSTRACT OF THE DISCLOSURE

The invention relates to novel nucleic acids encoding a fibroblast growth factor-23(FGF23) and proteins encoded thereby, mutations in which are associated with autosomal dominant rickets (ADHR). The invention further relates to methods of diagnosing and treating  
5 hypophosphatemic and hyperphosphatemic disorders comprising inhibiting or stimulating, respectively, the biological activity of FGF23 in a patient. The invention also relates to methods of treating osteoporosis, dermatomyositis, and coronary artery disease comprising stimulating the biological activity of FGF23 in a patient.

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FOOTNOTES